

**FRAMEWORKS FOR GENERATION OF JAVA MACRO INSTRUCTIONS
FOR STORING VALUES INTO LOCAL VARIABLES**

ABSTRACT OF THE DISCLOSURE

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Techniques for generation of Java macro instructions suitable for use in
Java computing environments are disclosed. As such, the techniques can
be implemented in a Java virtual machine to efficiently execute Java
instructions. As will be appreciated, a Java macro instruction can be
10 substituted for two or more Java Bytecode instructions. This, in turn,
reduces the number of Java instructions that are executed by the
interpreter. As a result, the performance of virtual machines, especially
those operating with limited resources, is improved. A Java macro
instruction can be generated for conventional Java instruction sequences or
15 sequences of Java instruction that are provided in a reduced set of
instruction. In any case, sequences that are frequently encountered can be
replaced by a Java macro instruction. These sequences are typically
encountered when Java objects are instantiated, during programming
loops, and when a local variables are assigned a value.